

Mindful Safety

Focusing to reduce the potential for error



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In many countries, slips, trips and falls are the most common causes of workplace injury, causing on average as much as 40% of all reported major injuries.

The outcome from such events can range from minor injuries such as a strain or sprain, to loss of life. Risk assessments outline a range of controls from using safety harnesses when working at height, to holding the handrail as we descend the stairs.

Despite the often-apparent risk of such accidents and the broad application of control measures, the frequency of slip, trip and fall events persists. For example, in the USA there are around two million accidents involving slips, trips and falls on stairways each year.

In Canada, nearly 20% of all workplace lost time accidents are falls in the workplace (around 42,000

each year) with the majority (66%) occurring on the same level. In the United Kingdom, slips and trips are the most common cause of major injuries to employees, responsible for more than half (57%) of all major injuries and almost 30% of over-seven-day injuries to employees.

Falls from height are the next most common and account for around 30% of all fatal injuries to workers. According to results from the latest Labour Force Survey, around 1.5 million working days are lost each year due to slips, trips and falls. That breaks down into 986,000 working days due to slips and trips, and 567,000 working days due to falls in the workplace. The UK regulator, the Health and Safety Executive (HSE), estimates that these accidents cost employers more than £512m a year in lost production and associated costs. It's perhaps not surprising that slips and trips are also

the most reported injury sustained by members of the public, attributed to more than half of all reported public injuries in 2013.

The European Agency for Safety and Health at Work (EU-OSHA) confirms that slips, trips and falls are now the largest cause of accidents in all sectors from office work to heavy manufacturing. While no sector is immune to the risk of slips, trips and falls, some do appear to have a higher propensity than others to the risk. In the UK in 2013/14, the highest number of major injury slips and trips in the workplace was in the health and social care sector (1,264) followed by education (982). More than half of all fall injuries resulting in death occurred in the construction industry and the sector also had the most major injury falls, accounting for more than 20% of the total last year. Its the same picture in the USA, with the Bureau of Labor Statistics ▶

reporting that in 2009 the incidence rate of lost-workday injuries from slips, trips and falls on the same level in hospitals was 38.2 per 10,000 employees. Notably this is almost double the average rate for all other private industries combined – 20.1 per 10,000 employees.

As might be suspected there are seasonal variations in the numbers of slips, trips and falls, with the majority of major workplace accidents involving slips and trips being reported in autumn and winter. This most likely reflects adverse weather conditions such as slippery ground surfaces resulting from fallen leaves, rain, snow and ice.

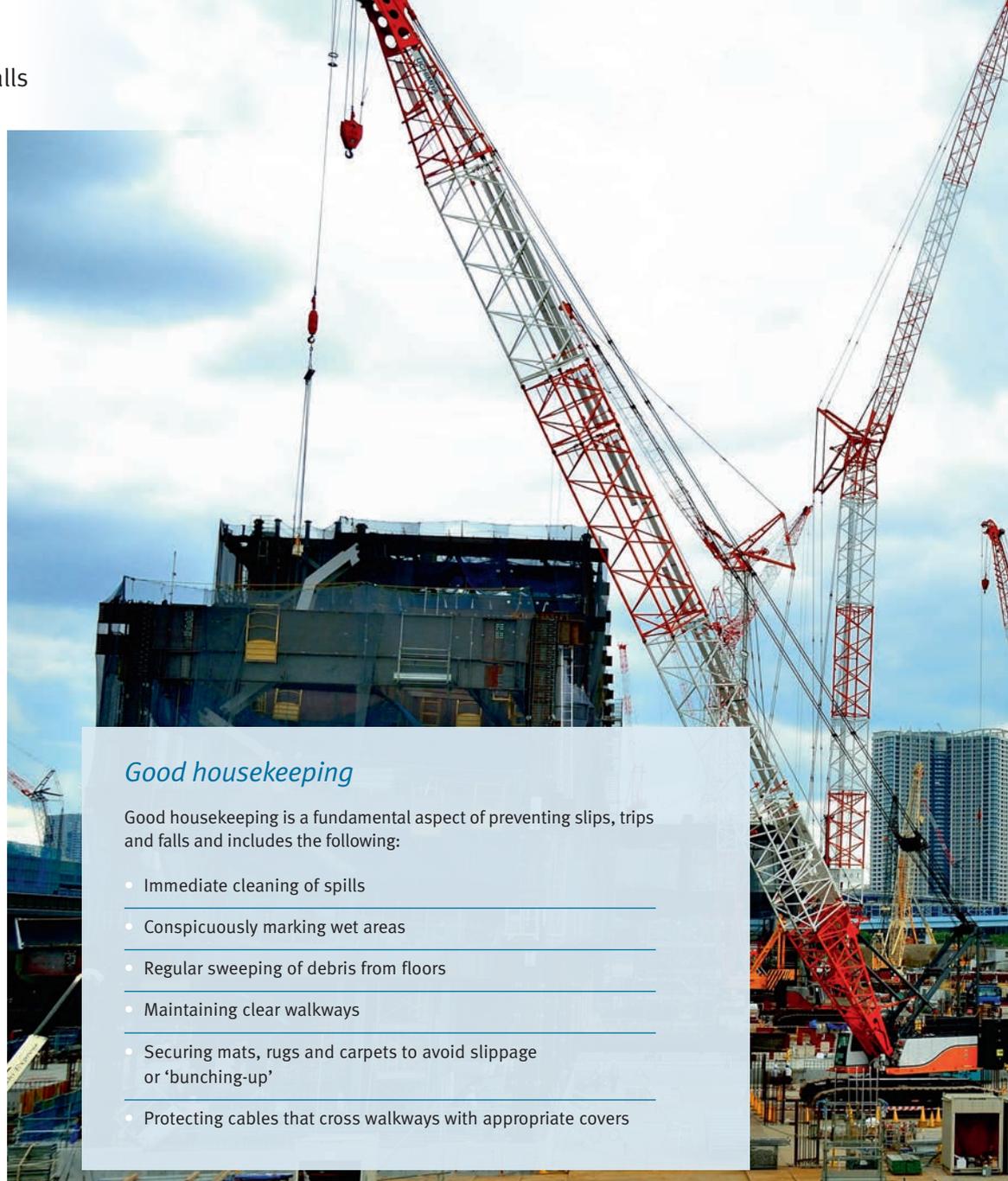
Managing the risk

As with many workplace hazards, in order to effectively control the risk of slips, trips and falls we must take a holistic view and consider three factors: people, environment and process.

Environment

Control measures to combat the risk of workplace slips, trips and falls usually begin with the aim of eliminating the risk at source, perhaps by levelling uneven floor surfaces. Changing or modifying walking surfaces can prove effective in preventing slips and trips and there is now a range of proprietary abrasive-filled paint-on coatings that can be quickly and easily applied.

Hierarchies of control then encourage substitution; for example, using an alternative method of floor cleaning, followed by segregation (using barriers or signage to keep workers away from wet floors). The next step on the hierarchy is administrative controls, such as posting warning signs or increasing lighting to indicate changes of floor-levels or steps. The final measure is personal protection; for example, wearing footwear with special non-slip soles.



Good housekeeping

Good housekeeping is a fundamental aspect of preventing slips, trips and falls and includes the following:

- Immediate cleaning of spills
- Conspicuously marking wet areas
- Regular sweeping of debris from floors
- Maintaining clear walkways
- Securing mats, rugs and carpets to avoid slippage or 'bunching-up'
- Protecting cables that cross walkways with appropriate covers

Process

Among the process factors, work pace, workload and time pressure can often negatively influence employee behaviours around risk, as employees may find themselves within an apparent conflict between productivity and safety. If employees experience high levels of such pressures then their behaviour may visibly change in the form of creating 'work arounds' designed to help them get the job done more quickly. While this may save time and increase individual work rate, it also introduces higher levels of risk.

People

Over the last decade research indicates that up to 90% of all industrial accidents can be attributed



Figure 1. Taking a Holistic View



to human factors. Accordingly, behaviours should be considered an important part in our plans to minimise the risk of workplace slips, trips and falls.

Nudge theory

Nudge theory has, over the last few years, come to be considered a useful approach to realign beliefs and encourage specific behaviours. From notices reminding us to hold handrails on staircases, to speed camera warning signs, images of small children placed by the roadside or yellow stripes painted to mark changes in floor surfaces, these nudges are designed to make us more mindful of what's going on around us. But why is it that we need to be 'nudged'?

In my kitchen last night, I began to tidy things away after a delicious supper. I stowed the seasonings back in the cupboard and began loading the cutlery into the appropriate area in the dishwasher. Working without thinking, I continued chatting with my partner, discussing our forthcoming holiday plans: which hotel we preferred, the activities we would enjoy, the locations we planned to scuba dive, and so on. At first I didn't quite pick it up: 'Andrew'... 'An-drew'... 'ANDREW!' I turned to find my partner standing in front of me, an incredulous smile on her face and a finger directed at the refrigerator. I turned to see what she was pointing at. Was it the copious amount of salad? Was she reminding me we were almost out

of milk? Or did she want me to pass her the bottle of chilled Sauvignon Blanc? I was seriously puzzled. It took me almost a full 30 seconds to realise what she wanted me to see. A pile of dirty plates was stacked neatly on the middle shelf of the fridge. For a moment it felt like a strange dream – I wondered why these plates were there, but had no idea. Only when she started to pull them from the shelf did I realise that these were the very same plates from which we'd eaten our evening meals an hour earlier. But how did they end up in the fridge?

Suddenly my brain kicked back into gear – it was I who had stacked those plates in the fridge! What had caused me to do such a thing? In the flurry of cranial activity over ▶

the next few minutes I recalled a book on meditation I had recently been reading, entitled *'The Miracle of Mindfulness'* written by Buddhist teacher Thich Nhat Hanh. After cleaning up the kitchen I returned to my study to find the book.

During his teachings, Hanh was known for often recounting his formative days while in training at the Tu Hieu Pagoda in the 1940s. Sharing one of his recollections with his students, Hanh recalls the daily task of washing dishes for more than 100 monks. Back then, the task necessitated significantly more manual labour than it does now. Instead of soap, ashes from the fire were used, and the bristly discarded husks of coconuts were used as makeshift scrubbing brushes. Water had to be drawn by hand from a well at the edge of the monastery grounds – an arduous task that required effort and chilled his hands to the bone – and then heated on an open fire. Hanh explains that even when he had all of the materials in place, the challenge of scrubbing, wiping, drying and stowing away such a large volume of dishes meant that he had to work quickly in order

to be able to rejoin his colleagues in time for practice. As a result, the task of washing the dishes was always completed hurriedly and without much thought.

Three decades later, in the 1970s, Hanh reminisced on his experience as a young monk, and admits the 'evolution' of dishwashing to include such luxurious amenities as hot water on tap, liquid soap and a wide range of brushes, pads and cloths designed to speed up the task of cleaning plates, pots and pans in the most efficient manner. Despite having progressed through his traineeship, Hanh still found time to wash the dishes – with these modern accoutrements he moved briskly through the task – again without a second thought for what he was doing.

Now that we're in the 21st century many of us are fortunate enough to have a dedicated machine in our kitchens that eliminates much of the manual labour of washing dishes. All we need to do is stack the pots, pans, plates, knives and forks, add some detergent and press 'go'. Simple. While the advances in technology make the task easier than ever before,

our mental connection to the task is still as weak as it was for Thich Nhat Hanh back in the 1940s – my mental slip in the kitchen made this abundantly clear. We perform mundane everyday tasks such as cleaning the kitchen as quickly as possible to get the job done. The familiarity and simplicity of the task allow us to breeze through without specific thought for what we are doing – operating on 'auto-pilot' you might say.

Even in as dull a task as washing dishes, teacher Hanh argues that we deprive ourselves of a magnificent opportunity to be fully engaged in the moment:

"While washing the dishes one should only be washing the dishes, which means that while washing the dishes one should be completely aware that one is washing the dishes."

Acknowledging the simplicity of the thought, Hanh accepts that it may seem peculiar to place so much attention on everyday commonplace chores, but he suggests that this is precisely the point. By taking the time to deliberately focus on such

a simple task we can become truly part of the moment, be ourselves and be fully aware of our thoughts, words and deeds. By focussing mindfully on the task at hand we stay present and reduce the potential for error.

Mindful work

In his book, Thich Nhat Hanh recounts the story of two acrobats – a poor old man and a young girl. The two performed their show in the local streets in order to earn enough money to buy food to eat. They used a tall bamboo pole that the old man balanced on top of his head while the little girl slowly and carefully climbed to the top. There she remained while the man walked through the streets. Both had to devote all their attention in order to maintain perfect balance.

One day the old man, keen to earn a little more from the act, created a new trick they would perform, and instructed the girl: *'I will watch you and you will watch me, so that we can help each other maintain concentration and prevent an accident. Then we will be sure to earn a little more to buy food today.'*

The little girl was wise and replied *'Dear master, I think it would be better ▶*



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for each of us to watch ourselves. To look after oneself means to look after both of us. If I concentrate fully on what I am doing, then I will not slip or fall. If you concentrate fully on balancing the pole and taking each step carefully, you shall be firm of foot and shall not trip. This way I am sure that we will avoid accidents and will earn enough for us to eat well this day.'

Underlining the importance of looking after our own actions, Hanh points out that in close quarters when one person conducts himself mindfully, others around him will tend to subconsciously observe and follow their lead. The presence of the member who lives mindfully serves as an active reminder to the others in the family to be mindful. In a similar way in the workplace, when one person works carefully, mindful of their own safety like the little acrobat girl, this can serve as a powerful reminder or nudge to his or her colleagues too.

The miracle of mindfulness

In 2012 there were 477 scientific journal articles published on the topic of mindfulness. Right now an internet search of the term reveals more than seven million results. Despite this, mindfulness is not a new concept. At the beginning of the third century AD the Anapanasati Sutra states that:

"When walking, the practitioner must be conscious that he is walking.

When sitting, the practitioner must be conscious that he is sitting.

When lying down, he must be conscious that he is lying down.

No matter what positions one's body is in, the practitioner must be conscious of that position.

Practicing thus, the practitioner lives in direct and constant mindfulness of the body."

Conclusion

So what can we learn from the lessons of Thich Nhat Hanh, and my clumsy cleaning experience in the kitchen? And how can it help us to reduce the incidence of slips, trips and falls at work?

While much of the literature still supports the position that behaviour is a hard to control symptom of the work environment, there is a push from other areas of psychological research to contradict this view. This research demonstrates that behaviour is a key causal factor of workplace slips, trips and falls and can be measured and controlled to some extent. There is no 'one size fits all' solution to resolving the challenge of workplace slips, trips and falls, but a holistic approach comprising people, environment and process can increase our chances of reducing risks.

In *The Miracle of Mindfulness*, Hanh explains that there are two ways to wash the dishes. The first is to "wash the dishes to have clean dishes" and the second is to "wash the dishes to wash the dishes." He suggests that if we wash the dishes only to be able to have time to make a cup of tea, or to move on to the next chore, then our focus on the objective of completing the task overrides our ability to be in the moment, be aware, be present. Further than that, Hanh even argues that we are not alive during this time. We enter a state of mental ambiguity that continues on from our standing at the sink with our hands in hot, soapy water, and then on into the next activity, as our bodies move automatically through the next tasks on our list. Being more mindful of our actions and being present in the moment may prove useful in preventing slips, both mental and physical, as we go about our daily business. ■

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